

**CRAVEN COUNTY**  
**RESURFACING CONTRACT:**  
**DB00299**

WBS: 2017CPT.02.04.20251.1

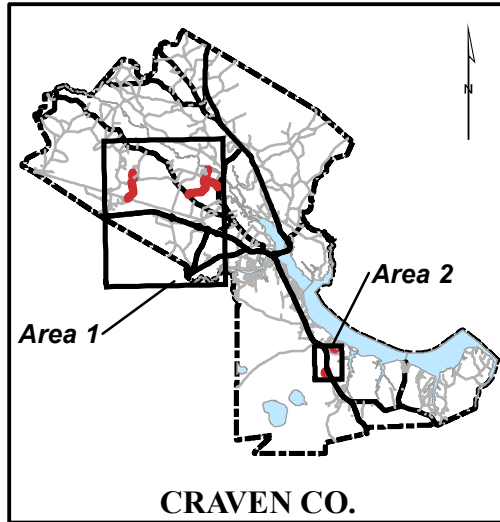
**LOCATION:**

- MAP 1 - SR-1232 FROM SR-1005 TO SR-1245.
- MAP 2 - SR-1248 FROM SR-1232 TO DEAD END.
- MAP 3 - SR-1401 FROM 300' W. OF SR-1423 TO NC-43.
- MAP 4 - SR-1423 FROM NC-55 TO NEUSE RIVER
- MAP 5 - SR-1760 FROM SR-1759 TO SR-1760
- MAP 6 - SR-1908 FROM SR-1176 TO DEAD END.
- MAP 7 - SR-1759 FROM SR-1760 TO US-70.

**TYPE OF WORK: PATCHING, MILLING, RESURFACING, & SHOULDER RECONST.**



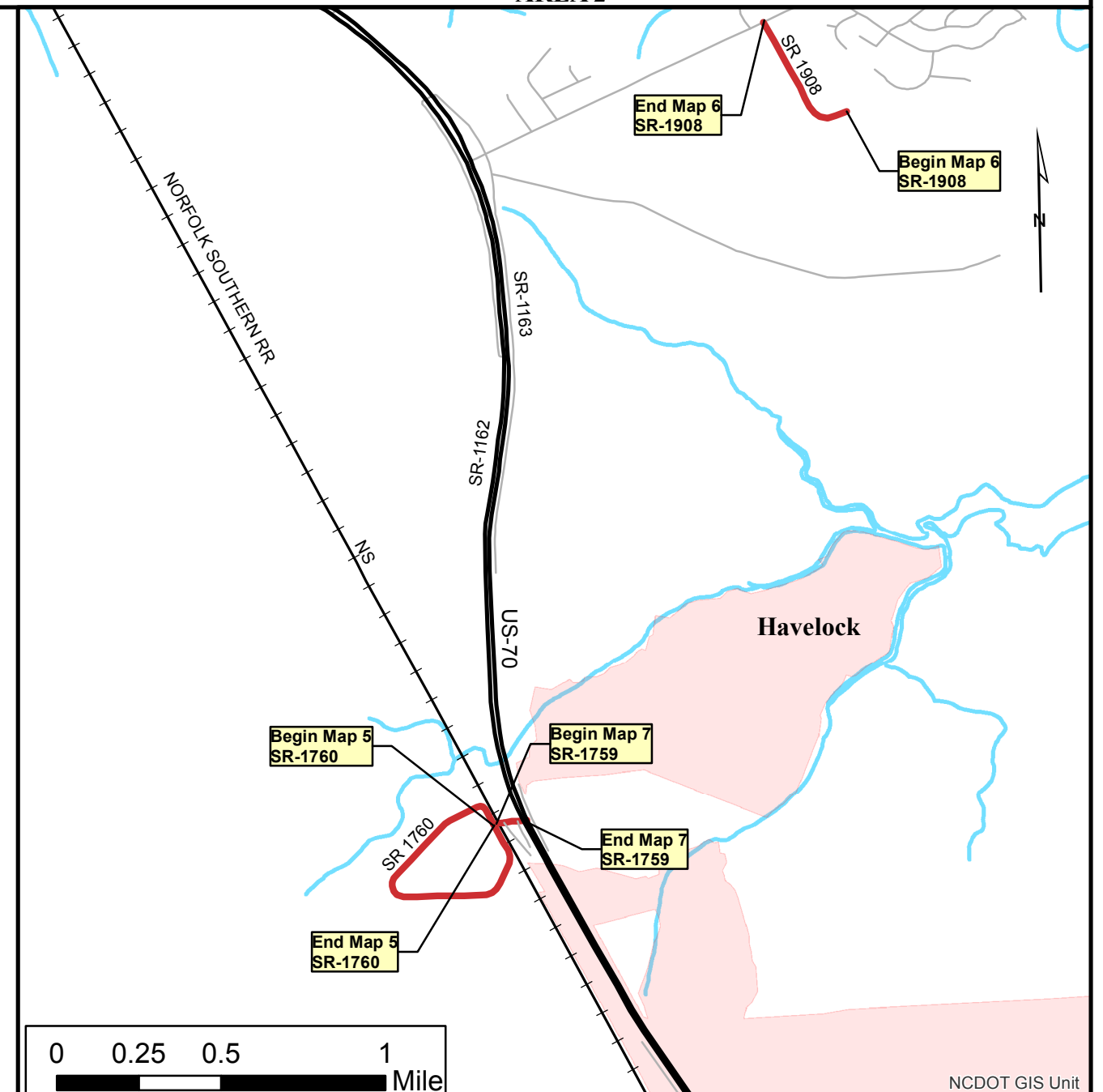
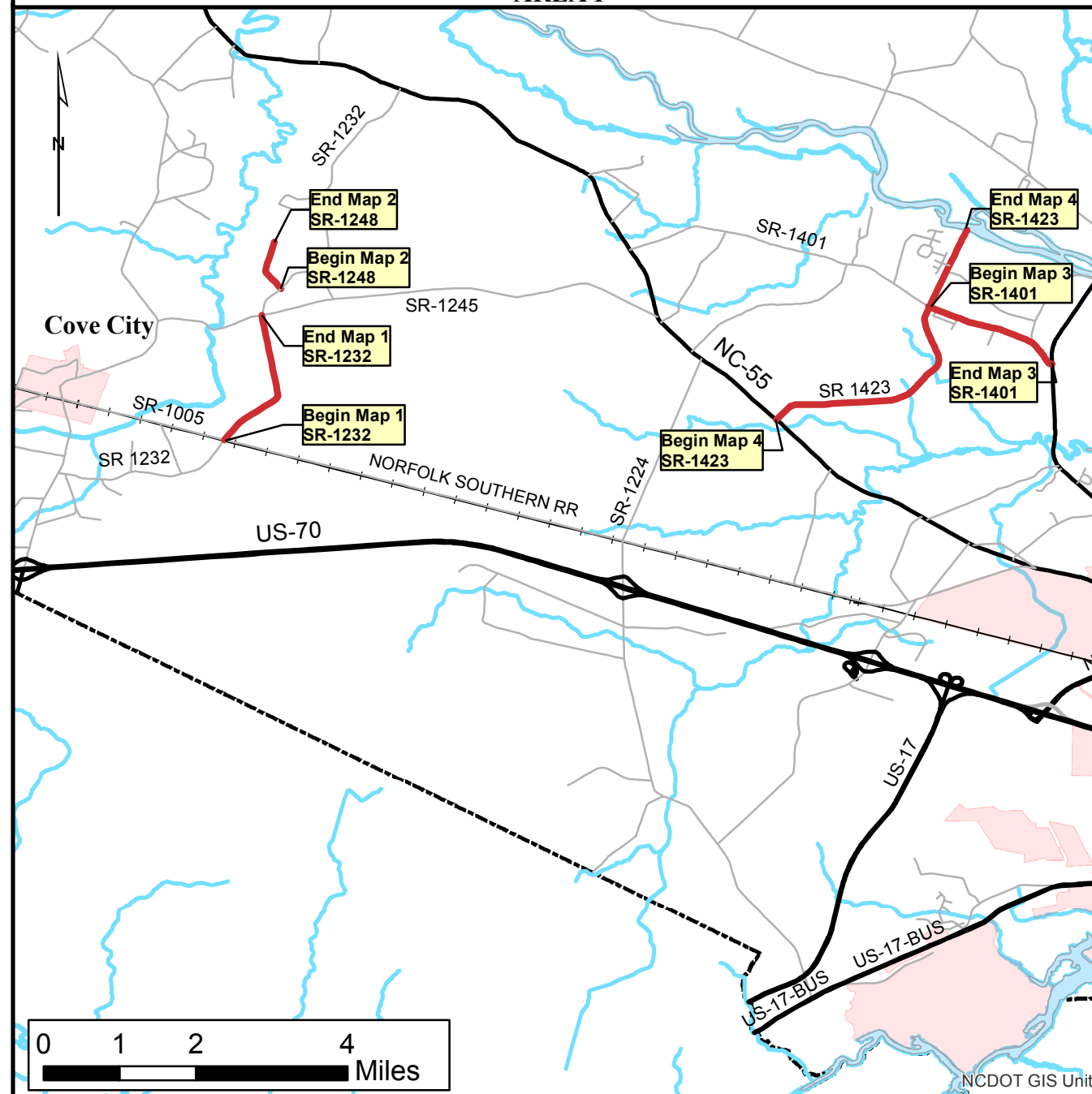
**NCDOT**  
 DIVISION 2



CRAVEN CO.

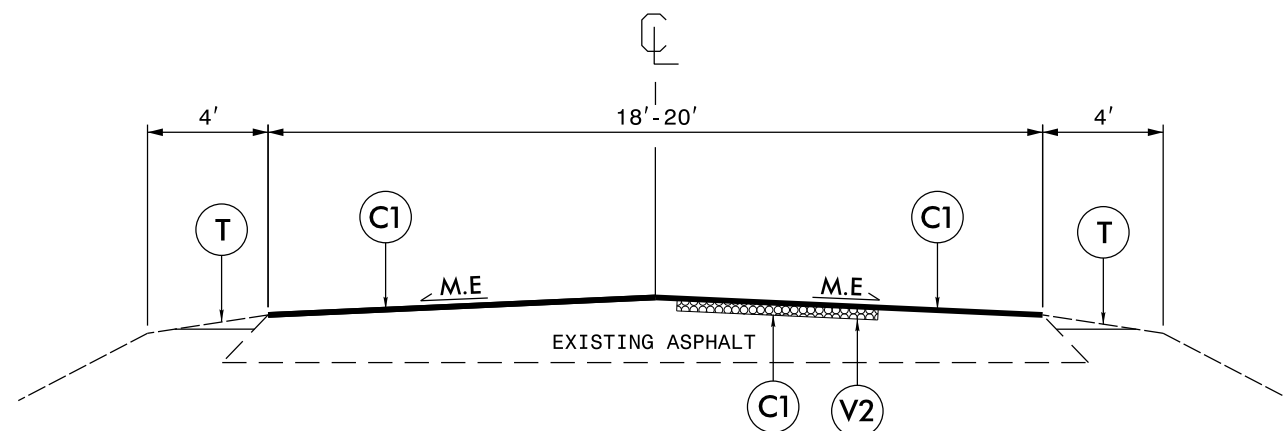
AREA 1

AREA 2



## TYPICAL SECTION NO. 1

- MAP 1 - SR-1232 FROM SR-1005(0+00) TO SR-1245(99+54).  
 MAP 2 - SR-1248 FROM SR-1232(0+00) TO DEAD END(35+37).  
 MAP 4 - SR-1423 FROM NC-55(0+00) TO NEUSE RIVER(200+50).  
 MAP 5 - SR-1760 FROM SR-1759(0+00) TO SR-1760(47+82).  
 MAP 7 - SR-1759 FROM SR-1760(0+00) TO US-70(3+30)

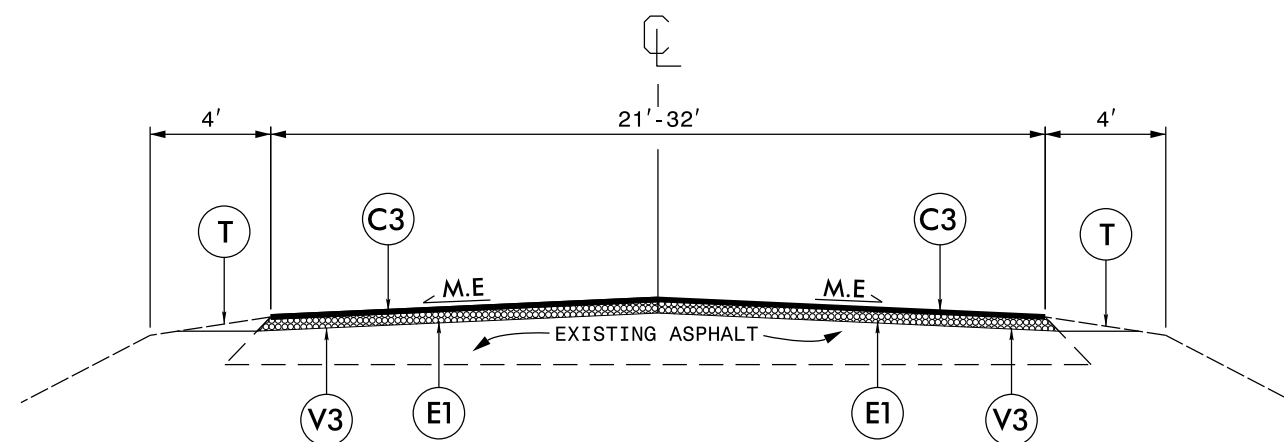


**NOTE:**

1. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
2. MAP 7 - INCLUDES 1 3/4" MILL & FILL AT SPECIFIED LOCATIONS, SEE PLAN SHEET 3 FOR PROPOSED MILLING LOCATIONS.
2. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.

## TYPICAL SECTION NO. 2

- MAP 3 - SR-1401 FROM 300' W. OF SR-1423(0+00) TO NC-43(85+94).



**NOTE 1:**

1. INCLUDES 6" MILL & FILL AT SPECIFIED LOCATIONS, SEE PLAN SHEET 3 FOR PROPOSED MILLING LOCATIONS.
2. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.

## PAVEMENT SCHEDULE

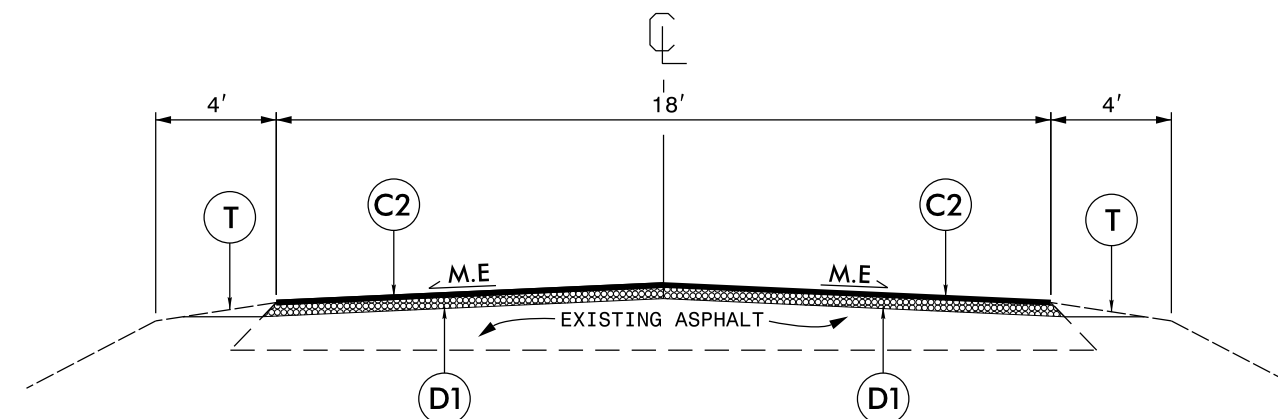
C1	PROP. APPROX. 1 3/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 192.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C3	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224.0 LBS. PER SQ. YD.
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E1	PROP. APPROX. 6" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 684 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
V1	INCIDENTAL MILLING.
V2	MILLING DEPTH 1 3/4", AT SPECIFIED WIDTHS.
V3	MILLING DEPTH 6", FOR THE ENTIRE WIDTH OF THE ROADWAY.

## DRAWINGS NOT TO SCALE

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

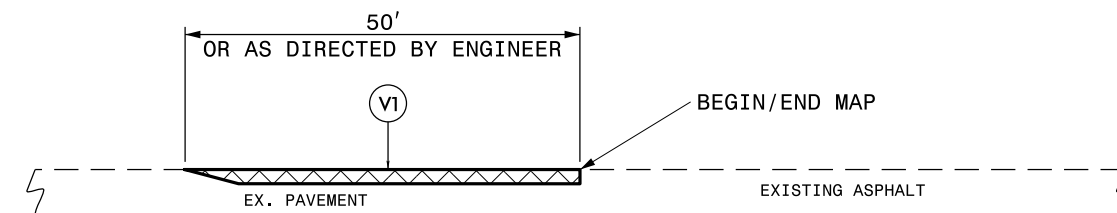
## TYPICAL SECTION NO. 3

- MAP 6 - SR-1908 FROM SR-1176(0+00) TO DEAD END(24+64).



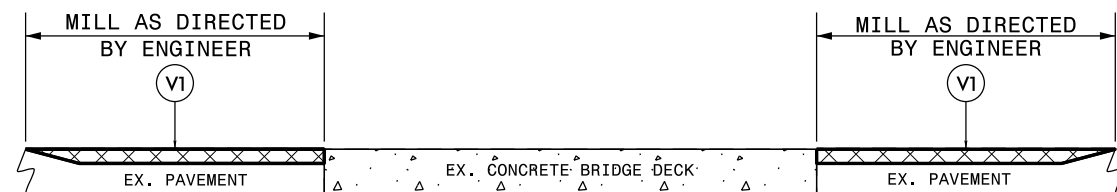
**NOTE 1:**

1. PLACE ASPHALT INTERMEDIATE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
2. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.



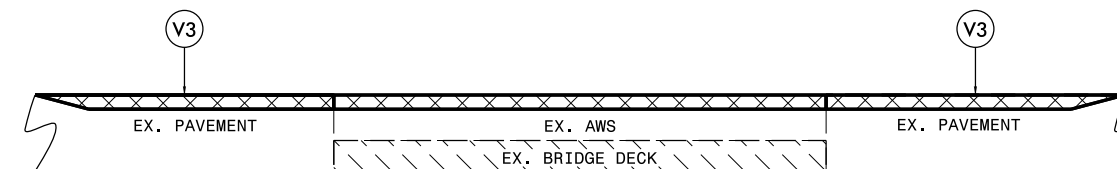
**DETAIL 1**  
BEGIN/END MAP TIE-IN

**NOTE:**  
1. MILLING SHALL BE PERFORMED AT MAIN LINE TIE-INS AND Y-LINE TIE-INS AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.



**DETAIL 2**  
BRIDGE MILLING

**NOTE:**  
1. MILLING SHALL BE PERFORMED AT THE BRIDGE APPROACHES AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.

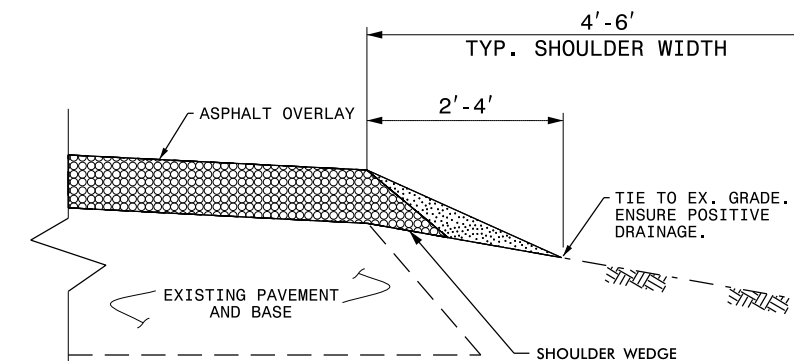


**DETAIL 3**  
BRIDGE MILLING

**NOTE:**  
1. MILLING SHALL BE PERFORMED AT THE BRIDGE APPROACHES AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.

**PROPOSED MILL & FILL LOCATIONS - MAP 3**

LT/RT CL	STATION	LENGTH	WIDTH FROM EP	LT/RT CL	STATION	LENGTH	WIDTH FROM EP
LT	8+67 - 9+70	103	7	RT	8+88 - 17+48	860	7
LT	11+11 - 11+87	76	7	RT	17+48 - 18+46	94	11
LT	13+16 - 15+97	281	7	RT	18+42 - 25+89	747	7
LT	17+68 - 18+42	94	11	RT	25+89 - 28+00	211	11
LT	24+30 - 38+06	1376	7	RT	30+14 - 34+71	457	7
LT	25+89 - 28+00	211	11	RT	36+11 - 38+00	189	7
LT	39+90 - 42+10	220	7	RT	40+00 - 41+15	115	7
LT	42+98 - 43+94	96	7	RT	46+31 - 54+75	844	7
LT	45+69 - 48+22	253	7	RT	56+24 - 56+89	65	7
LT	49+32 - 57+52	820	7	RT	60+92 - 61+60	68	7
LT	58+92 - 62+44	352	7	RT	63+46 - 64+00	54	7
LT	63+86 - 65+24	138	7	RT	64+68 - 67+74	306	7
LT	37+74 - 68+70	96	7	RT	67+74 - 68+70	96	11
LT	69+98 - 83+50	1352	7	RT	68+70 - 70+70	200	11
LT	73+47 - 74+80	133	7	RT	70+70 - 73+47	277	7
				RT	73+47 - 74+80	133	11
				RT	74+80 - 78+20	340	7
				RT	78+20 - 78+90	70	11
				RT	78+90 - 82+04	314	7



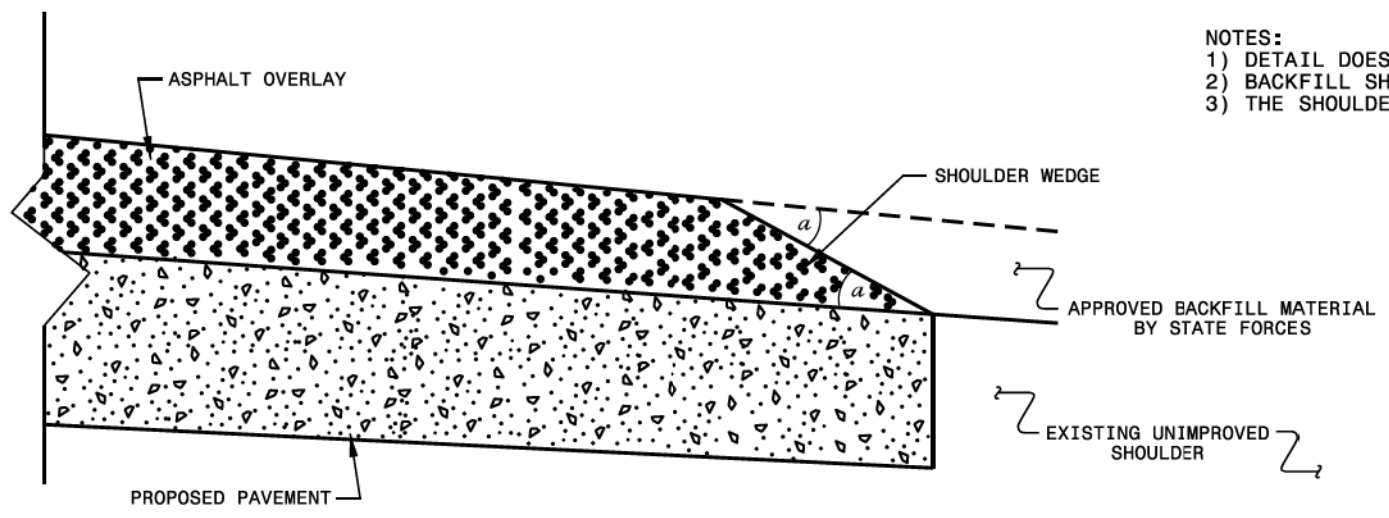
**SHOULDER RECONSTRUCTION DETAIL**

**NOTE:**  
1. SHOULDERS SHALL BE RECONSTRUCTED AS SHOWN IN STD. DWG. NO. 560.01 & 560.02, WITH A MINIMUM SLOPE OF 1" PER FOOT TO ENSURE POSITIVE DRAINAGE AWAY FROM THE ROADWAY.  
2. A VEGETATIVE BUFFER SHALL BE MAINTAINED BETWEEN THE DISTURBED AREA ALONG THE EDGE OF PAVEMENT AND THE DITCH SHOULDER POINT TO MINIMIZE EROSION. PULLING DITCHES OR CUTTING SHOULDERS TO GENERATE BORROW MATERIAL WILL NOT BE ALLOWED.  
3. REQUIRED BORROW MATERIAL MAY BE OBTAINED FROM NCDOT STOCKPILES. ANY EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR IN AN APPROVED DISPOSAL SITE.

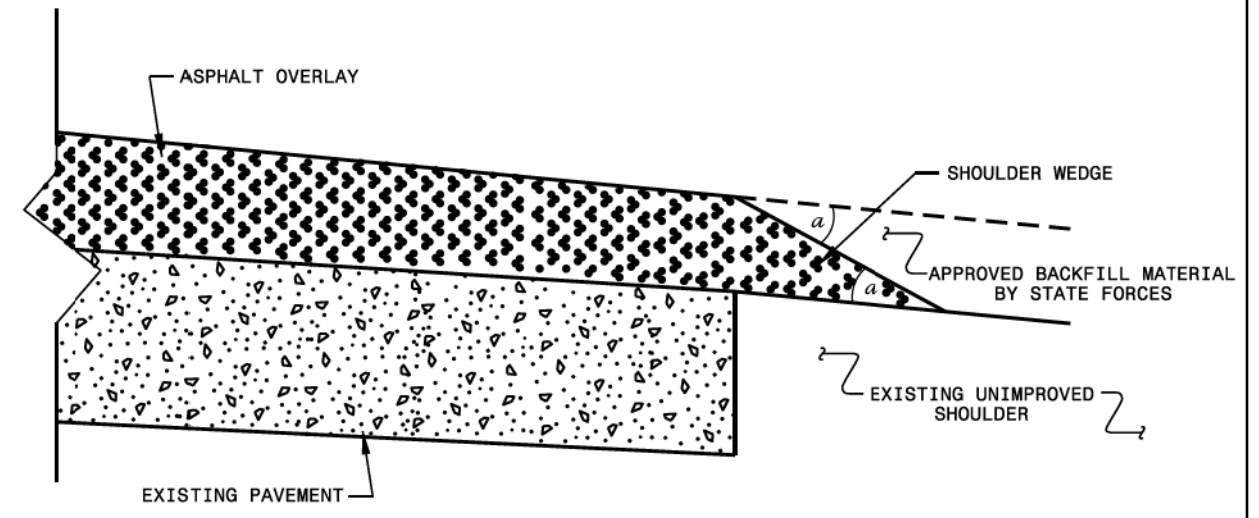
**PROPOSED MILL & FILL LOCATIONS - MAP 7**

LT/RT CL	STATION	LENGTH	WIDTH FROM EP	LT/RT CL	STATION	LENGTH	WIDTH FROM EP
				RT	2+05 - 2+91	86	5

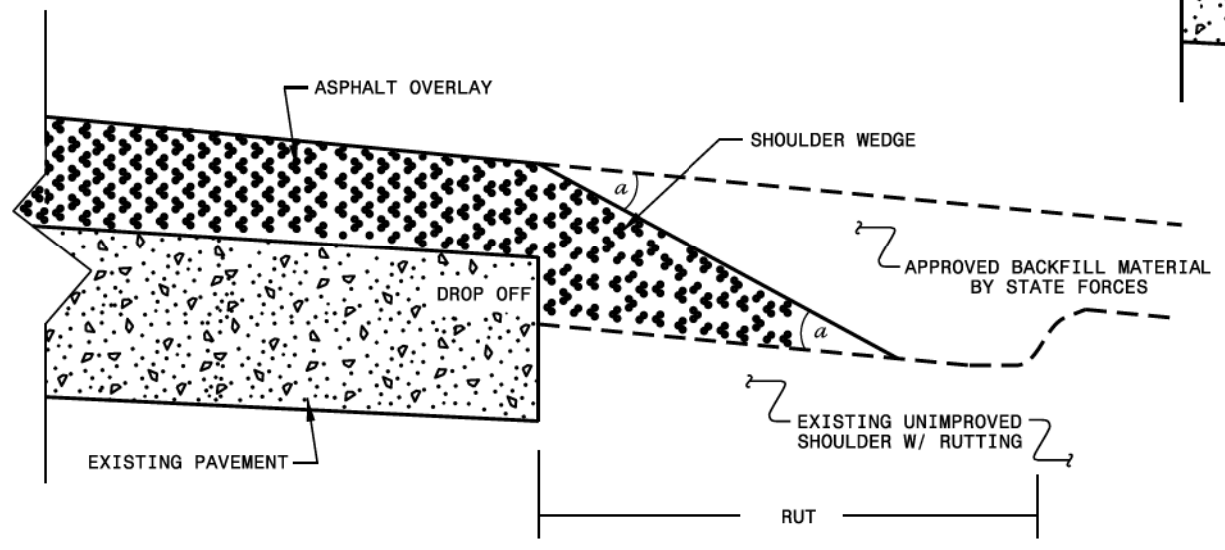
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ Widening or  
 with Existing Paved Shoulder having no dropoffs)



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ NO Widening)



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Adjacent to  
 Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

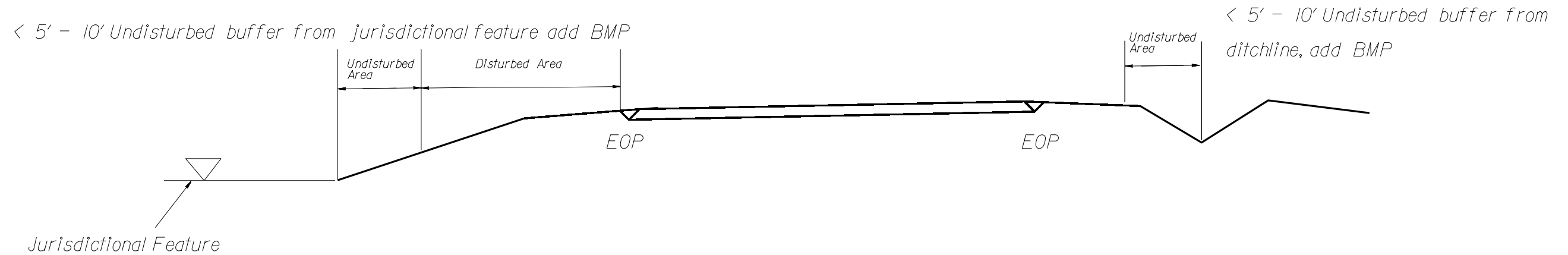
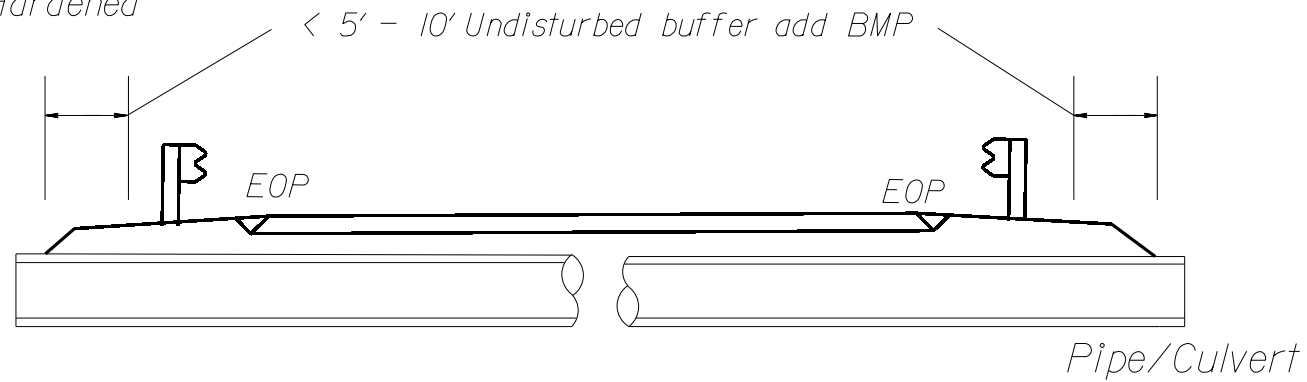
CONTRACT STANDARDS AND DEVELOPMENT UNIT		
Office 919-707-6950		FAX 919-250-4119
<b>SHOULDER WEDGE DETAILS</b>		
ORIGINAL BY: T.SPELL	DATE: 7-19-11	
MODIFIED BY:	DATE: 10/18/12	
CHECKED BY:	DATE:	
FILE SPEC: s:\user\detail\stand\shoulderwedge\detail.dwg		

24-MAR-2016 11:46  
 s:\user\detail\stand\shoulderwedge\detail.dwg

NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

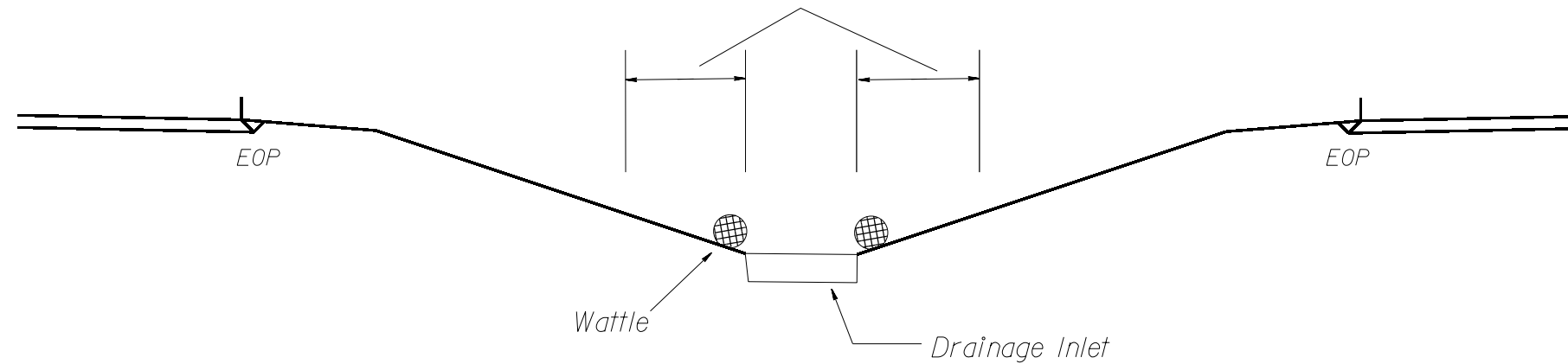
# EROSION CONTROL DETAIL



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed

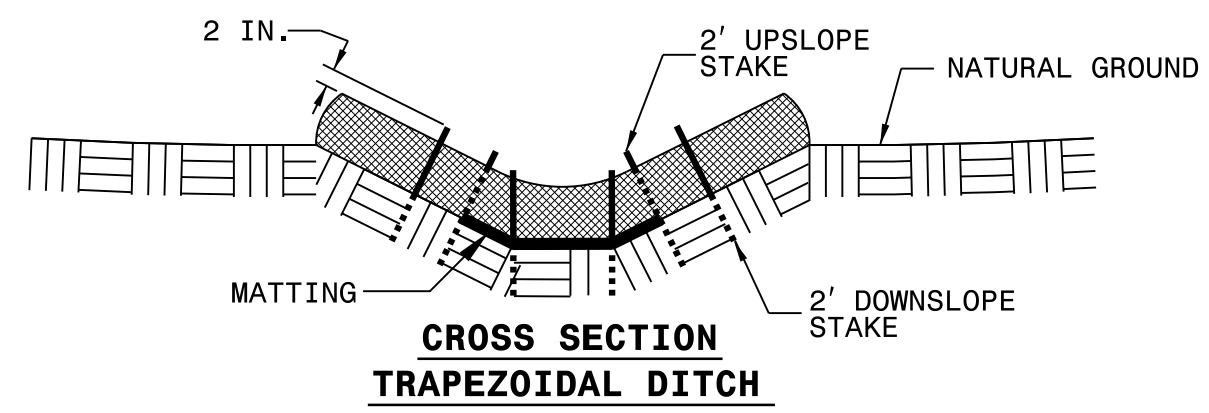
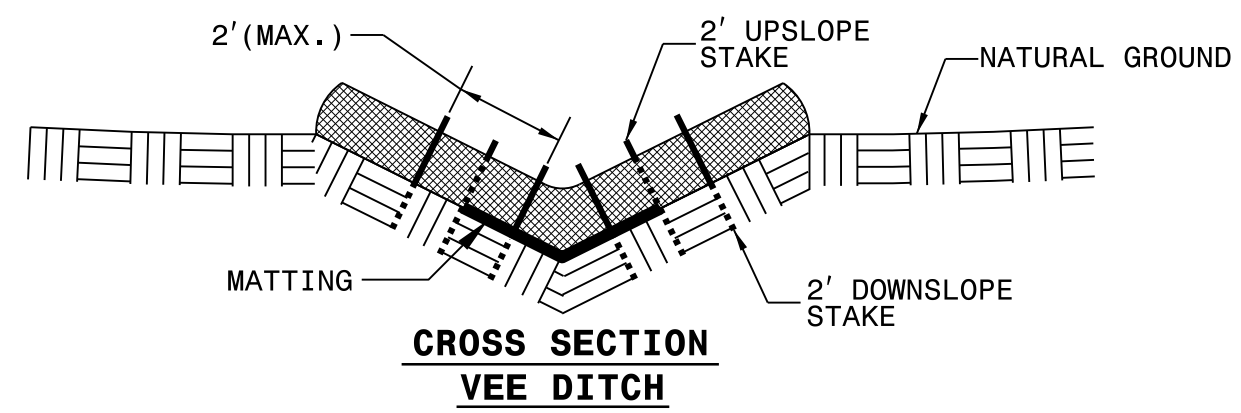
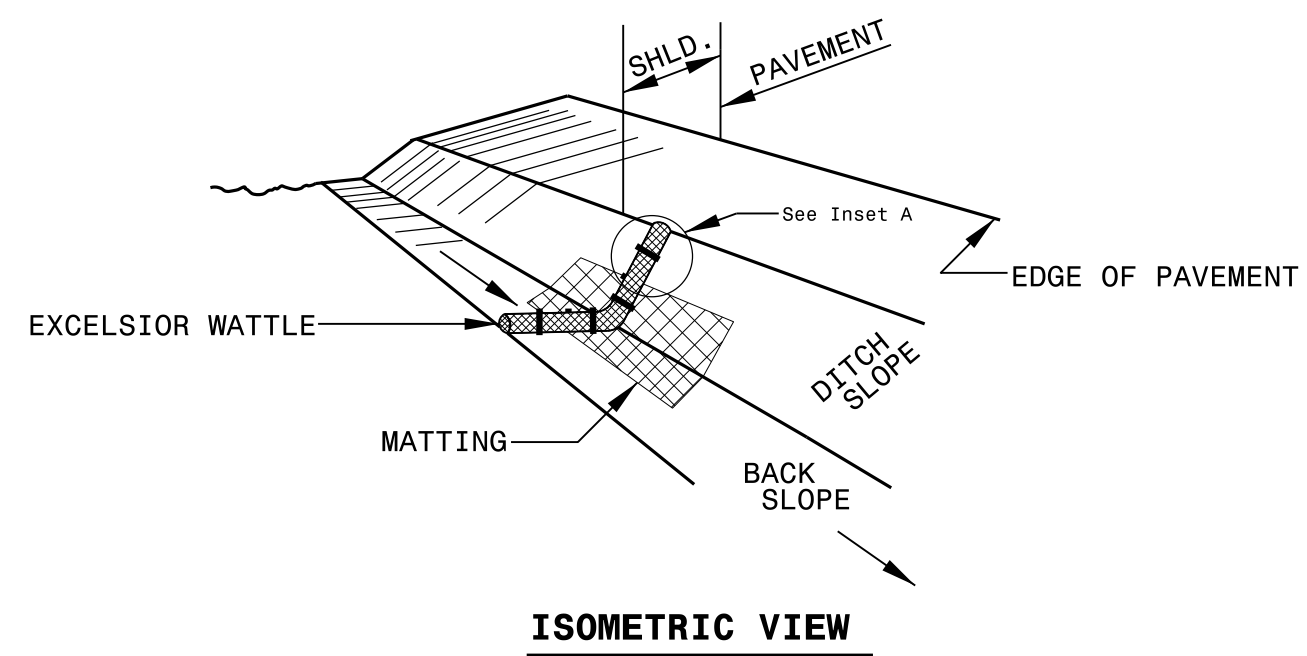


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

# WATTLE DETAIL



**NOTES:**

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

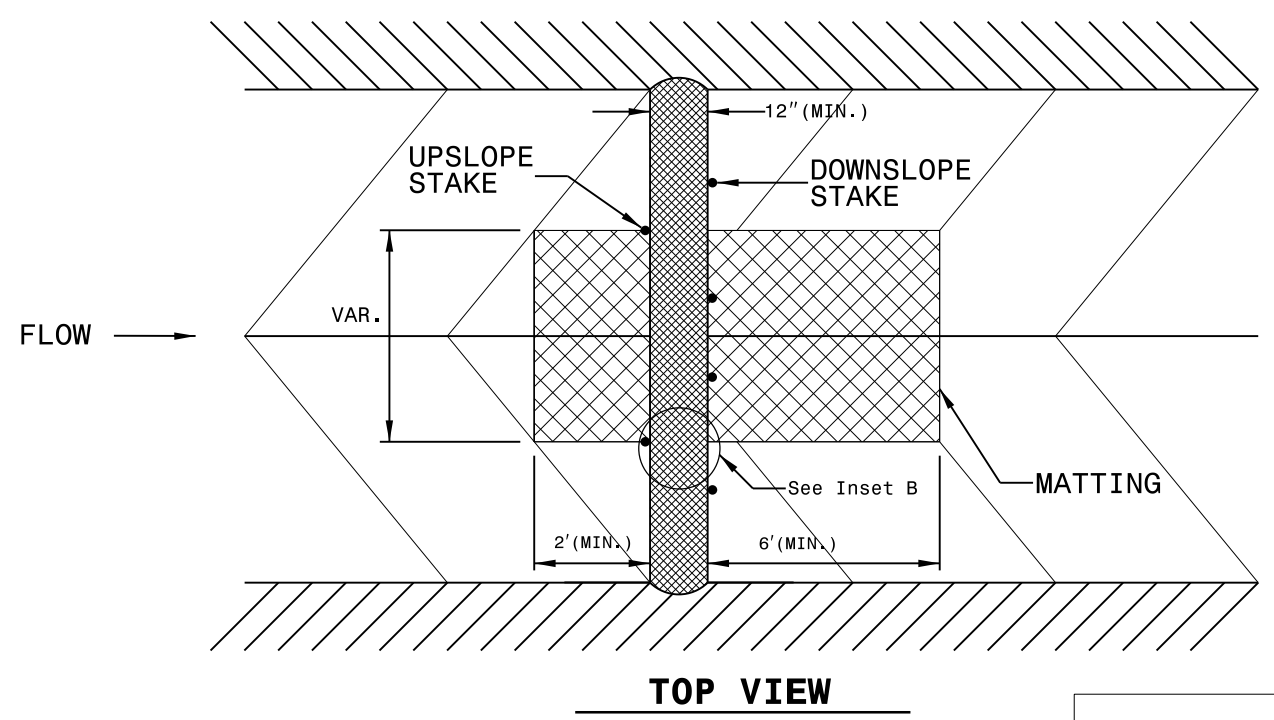
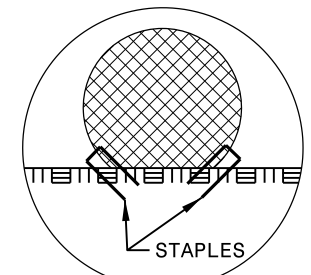
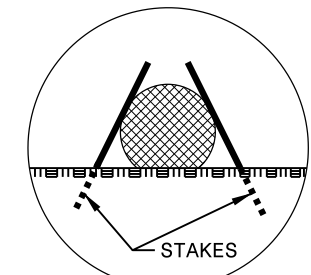
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



NOT TO SCALE

## SUMMARY OF QUANTITIES

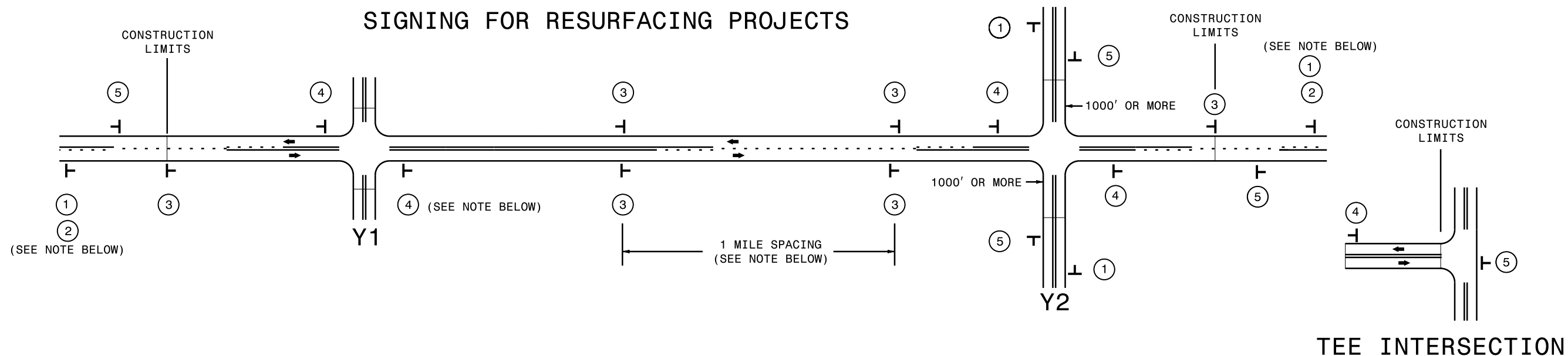
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	HAULING NCDOT SUPPLIED SHOULDER LOAD	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	6" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	INTERMEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MIX TONS	TEMPORARY SILT FENCE LF	WATTLE LF	SEED & MULCHING AC	RESPONSE FOR EROSION CONTROL EA	
2017.CPT.02.04.20251.1	Craven	1	SR-1232	FROM SR-1005 TO SR-1245	1	2	2WU	NO	NO	1.89	18	55	40	4		350			2,125	142	200.0	30.0	2.0	1		
<b>TOTAL FOR MAP NO. 1</b>										<b>1.89</b>		<b>55</b>	<b>40</b>	<b>4</b>		<b>350</b>			<b>2,125</b>	<b>142</b>	<b>200.0</b>	<b>30.0</b>	<b>2.0</b>	<b>1</b>		
2017.CPT.02.04.20251.1	Craven	2	SR-1248	FROM SR-1232 TO DEAD END	1	2	2WU	NO	NO	0.67	18	20	25	2		150			755	51	100.0	20.0	1.0	1		
<b>TOTAL FOR MAP NO. 2</b>										<b>0.67</b>		<b>20</b>	<b>25</b>	<b>2</b>		<b>150</b>			<b>755</b>	<b>51</b>	<b>100.0</b>	<b>20.0</b>	<b>1.0</b>	<b>1</b>		
2017.CPT.02.04.20251.1	Craven	3	SR-1401	FROM 300LF W. OF SR-1423 TO NC-43	2	2	2WU	NO	NO	1.63	22	50	50	4	9,200	400	3,454		2,839		322	200.0	30.0	1.7	1	
<b>TOTAL FOR MAP NO. 3</b>										<b>1.63</b>		<b>50</b>	<b>50</b>	<b>4</b>	<b>9,200</b>	<b>400</b>	<b>3,454</b>		<b>2,839</b>		<b>322</b>	<b>200.0</b>	<b>30.0</b>	<b>1.7</b>	<b>1</b>	
2017.CPT.02.04.20251.1	Craven	4	SR-1423	FROM NC-55 TO NEUSE RIVER	1	2	2WU	NO	NO	3.80	20	110	80	8		800			4,708	315	400.0	60.0	3.7	1		
<b>TOTAL FOR MAP NO. 4</b>										<b>3.80</b>		<b>110</b>	<b>80</b>	<b>8</b>		<b>800</b>			<b>4,708</b>	<b>315</b>	<b>400.0</b>	<b>60.0</b>	<b>3.7</b>	<b>1</b>		
2017.CPT.02.04.20251.1	Craven	5	SR-1760	FROM SR-1759 TO SR-1760	1	2	2WU	NO	NO	0.91	20	30	20	2		450			1,113	75	100.0	20.0	1.0	1		
<b>TOTAL FOR MAP NO. 5</b>										<b>0.91</b>		<b>30</b>	<b>20</b>	<b>2</b>		<b>450</b>			<b>1,113</b>	<b>75</b>	<b>100.0</b>	<b>20.0</b>	<b>1.0</b>	<b>1</b>		
2017.CPT.02.04.20251.1	Craven	6	SR-1908	FROM SR-1176 TO DEAD END	3	2	2WU	NO	NO	0.47	18	15		1		300		746	442	65	50.0		0.5	1		
<b>TOTAL FOR MAP NO. 6</b>										<b>0.47</b>		<b>15</b>		<b>1</b>		<b>300</b>		<b>746</b>	<b>442</b>	<b>65</b>	<b>50.0</b>		<b>0.5</b>	<b>1</b>		
2017.CPT.02.04.20251.1	Craven	7	SR-1759	FROM SR-1760 TO US-70	1	2	2WU	NO	NO	0.06	20	2	10	1		300			122	8			0.2			
<b>TOTAL FOR MAP NO. 7</b>										<b>0.06</b>		<b>2</b>	<b>10</b>	<b>1</b>		<b>300</b>			<b>122</b>	<b>8</b>			<b>0.2</b>			
<b>TOTAL FOR PROJ NO. 2017.CPT.02.04.20251.1</b>										<b>9.42</b>		<b>282</b>	<b>225</b>	<b>22</b>		<b>9,200</b>	<b>2,750</b>	<b>3,454</b>	<b>746</b>	<b>2,839</b>	<b>9,265</b>	<b>978</b>	<b>1,050.0</b>	<b>160.0</b>	<b>10.1</b>	<b>6.0</b>
<b>GRAND TOTAL</b>										<b>9.42</b>		<b>282</b>	<b>225</b>	<b>22</b>		<b>9,200</b>	<b>2,750</b>	<b>3,454</b>	<b>746</b>	<b>2,839</b>	<b>9,265</b>	<b>978</b>	<b>1,050.0</b>	<b>160.0</b>	<b>10.1</b>	<b>6.0</b>

## WORK ZONE TRAFFIC CONTROL

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	441300000-E	445700000-N	
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	TEMPORARY TRAFFIC CONTROL LS	
2017.CPT.02.04.20251.1	Craven	1	SR-1232	FROM SR-1005 TO SR-1245	1	2	2WU	1.89	18	212	0.20	
<b>TOTAL FOR MAP NO. 1</b>										<b>1.89</b>	<b>212</b>	<b>0.20</b>
2017.CPT.02.04.20251.1	Craven	2	SR-1248	FROM SR-1232 TO DEAD END	1	2	2WU	0.67	18	75	0.07	
<b>TOTAL FOR MAP NO. 2</b>										<b>0.67</b>	<b>75</b>	<b>0.07</b>
2017.CPT.02.04.20251.1	Craven	3	SR-1401	FROM 300LF W. OF SR-1423 TO NC-43	2	2	2WU	1.63	22	184	0.17	
<b>TOTAL FOR MAP NO. 3</b>										<b>1.63</b>	<b>184</b>	<b>0.17</b>
2017.CPT.02.04.20251.1	Craven	4	SR-1423	FROM NC-55 TO NEUSE RIVER	1	2	2WU	3.80	20	426	0.39	
<b>TOTAL FOR MAP NO. 4</b>										<b>3.80</b>	<b>426</b>	<b>0.39</b>
2017.CPT.02.04.20251.1	Craven	5	SR-1760	FROM SR-1759 TO SR-1760	1	2	2WU	0.91	20	102	0.09	
<b>TOTAL FOR MAP NO. 5</b>										<b>0.91</b>	<b>102</b>	<b>0.09</b>
2017.CPT.02.04.20251.1	Craven	6	SR-1908	FROM SR-1176 TO DEAD END	3	2	2WU	0.47	18	54	0.07	
<b>TOTAL FOR MAP NO. 6</b>										<b>0.47</b>	<b>54</b>	<b>0.07</b>
2017.CPT.02.04.20251.1	Craven	7	SR-1759	FROM SR-1760 TO US-70	1	2	2WU	0.06	20	24	0.01	
<b>TOTAL FOR MAP NO. 7</b>										<b>0.06</b>	<b>24</b>	<b>0.01</b>
<b>TOTAL FOR PROJ NO. 2017.CPT.02.04.20251.1</b>										<b>9.42</b>	<b>1,077</b>	<b>1.00</b>
<b>GRAND TOTAL</b>										<b>9.42</b>	<b>1,077</b>	<b>1.00</b>



# SIGNING FOR RESURFACING PROJECTS



LEGEND	
	STATIONARY SIGN
	DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	2	3	4	5	
			PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.			
			#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)			
			- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.			
			- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. - DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. - INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. - FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. - A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.			
		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.				

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

- 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE
- 2) SUBDIVISION ROADS
- 3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.



PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.



RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2 LANE ROADWAYS